

# TJ Pavaritpong

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## EDUCATION

### University of Illinois Urbana-Champaign

Expected Graduation: Dec 2024

*B.S. in Statistics & Computer Science; GPA: 3.52 / 4.00 ; ACT: 34/36*

Relevant Coursework: Algorithms, Computer Systems, Database Systems, Numerical Methods, Statistical Modeling

## EXPERIENCE

### Quant Illinois

Sep 2023 – Present

*Quantitative Trader*

- Researching and implementing statistical arbitrage strategies for cryptocurrencies for student-run investment fund

### Agoda

Jan 2023 – Jun 2023

*Data Engineer Intern*

- Migrated 12 Google Ads API report downloader applications across teams, leveraging **Hadoop**, **Spark**, **Hive**, **Scala**, and **GitLab CI/CD** to efficiently process data for the millions of keywords.
- Optimized algorithm performance, reducing application runtime by a linear factor from **4 hours to 20 minutes**
- **Resolved 2 critical production incidents** caused by incorrect data returned from the Google Ads API
- Created a Slack bot to explain SQL and Spark ETL pipelines to stakeholders using Python & GPT-3
- Devised & implemented a data validation rule in **SQL** to improve anomaly detection; Backtested using **RStudio**.

### Zipmex

Jun 2022 – Jul 2022

*Software Engineer Intern (Frontend)*

- Created and styled new **React** UI components to match Figma designs for trading-related pages, contributing to a website revamp and light theme release
- Refactored legacy UI components into reusable **React/Material-UI** components, enhancing visual consistency
- Improved code quality & debugging by enhancing type inference in the React & Redux codebase with **TypeScript**

### Central Group

Jun 2019 – Aug 2019

*Software Engineer Intern (Mobile)*

- Identified inefficiencies within retail store and warehouse operations, leading to targeted improvements
- Streamlined warehouse processes across 200 service points by integrating Scandit's barcode-scanning library into the employees' mobile app, written in **Ionic** and **Angular**, to enable instant bulk-scanning of shipment labels
- Leveraged **Tesseract.js**' optical character recognition (OCR) to enable product information extraction from receipts and shelf tag verification and correction
- Optimized text recognition of the Thai alphabet and numerals by tuning image-processing settings

## PROJECTS

### Peer2Pair: Community Finder for Hobbies | *React, Node.js, MySQL, Azure, LivePeer*

Jan 2023

- *Led a beginner hackathon team* to create a web app that helps match people with similar interests working towards the same goals. Used LivePeer, a blockchain video broadcasting network, as part of the backend.

### Illini CC'd: Credit Card Recommender | *React, Node.js, MySQL, GCP, Material-UI*

Sep - Dec 2022

- Led the project and created the whole React front-end UI
- Collaborated with a team to design the database schema, scrape the web for credit card offers and benefits, develop API endpoints, and host the application on Google Cloud Platform

### Blackjack Simulator | *C++, Catch2, Cinder*

June 2022

- Developed a 2D blackjack simulator designed to train players in optimal strategy

## SKILLS

**Languages:** Python, SQL, R, Scala, C, JavaScript, HTML, CSS

**Frameworks & Libraries:** React, Node.js, Apache Spark, NumPy, pandas, matplotlib

**Developer Tools:** Git, Linux/Unix, Docker, Tableau, Agile/Scrum Methodology